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Small, Medium-sized, and Large Businesses in the Canadian Economy: Measuring Their Contribution to Gross Domestic Product from 2001 to 2008

by Danny Leung, Luke Rispoli, and Raymond Chan

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^{r}	revised
x	suppressed to meet the confidentiality requirements of the *Statistics Act*
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F	too unreliable to be published
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Table of contents

Abstract 5

Executive summary 6

1 Introduction 7

2 Conceptual issues 8

2.1 The measurement of gross domestic product 8

2.2 Total economy versus business sector 9

3 Data sources and methodology 9

4 Gross domestic product by business size for the business sector 10

5 Gross domestic product of small, medium-sized, and large firms by industry 13

6 Conclusion 19

References 20

Abstract

This paper estimates the contributions to gross domestic product (GDP) made by small, medium-sized, and large businesses in the Canadian business sector from 2001 to 2008. The contribution of large businesses, that is, businesses with 500 or more employees, to business-sector GDP steadily increased from 45.0% in 2001 to 47.9% in 2008. Small and medium-sized businesses, including unincorporated businesses, accounted for the remaining 52.1% in 2008.

Large firms had more than 50% of business-sector GDP in utilities, information, mining and oil and gas, manufacturing, finance and insurance, management of companies and enterprises, and transportation and warehousing, while they had less than 15.0% of GDP in construction, other services, education, health, and agriculture (including forestry and fishing).

About half of the increase in the large-business-sector GDP from 2001 and 2008 was accounted for by the mining and oil and gas industry, where GDP increased by $87.0 billion overall and grew by about 17.6% per year during this period. As the resource sector expanded through the 2000s, large firms in the sector contributed substantially to the increase in their overall share of business-sector GDP.

Executive summary

This paper adds to our understanding of the contributions made to the economy by small, medium-sized, and large businesses in Canada. It does this by examining the shares of gross domestic product (GDP) produced by each of these size groups in the business sector.

Previous studies relied predominately on employment, an input to the production process, rather than on a measure of output. This study overcomes this problem by focusing directly on GDP.

The paper estimates business-sector GDP by business-size class from 2001 to 2008. The contribution of large businesses, that is, businesses with 500 or more employees, to business-sector GDP steadily increased from 45.0% in 2001 to 47.9% in 2008. Small and medium-sized businesses, including unincorporated businesses, accounted for the remaining 52.1% in 2008.

The resource boom plays an important role in explaining how the contribution of large businesses increased. Of the $95.3-billion increase in nominal GDP in mining and oil and gas, $87.0 billion, or 91.3%, came from large businesses. As a result, the share of GDP in mining and oil and gas accounted for by large businesses increased from 69.4% in 2001 to 82.9% in 2008.

These developments in mining and oil and gas outweighed the impact of the declining importance of the manufacturing industry, an industry where large firms have dominated historically. Nominal GDP in the manufacturing sector fell by $6.3 billion between 2001 and 2008. This decline can be accounted for entirely by the $12.9-billion fall in manufacturing GDP in the large-business category. The manufacturing GDP of small businesses actually rose at an average rate of 3.1% per year over the 2001-to-2008 period.

1 Introduction

The resource boom and the appreciation of the Canadian dollar through much of the 2000s impacted the Canadian economy in numerous ways. For example: they led to a shift in the relative performance of the manufacturing sector[1] and the mining and oil and gas sector; they have had a differential impact on the gross domestic product (GDP) and the gross domestic income of each of the provinces;[2] and they have led to a movement of workers across provinces.[3]

Another feature of the Canadian economy that has been affected is the relative importance of small, medium-sized, and large businesses to the economy. How the importance of small, medium-sized, and large businesses changed over the 2000s is of interest because the relative contribution of businesses of different sizes has often been linked to the dynamism, maturity, and efficiency of an economy.

This paper presents estimates of the contributions made by small (0 to 99 employees), medium-sized (100 to 499 employees), and large (500 or more employees) businesses to Canadian business-sector GDP over the 2001-to-2008 period.[4] These estimates are calculated using the firm-level data sources that Leung, Rispoli, and Gibson (2011) used to create GDP by firm size in Canada for 2005 and additional information from Statistics Canada's Business Register File.

As in Leung, Rispoli, and Gibson (2011), each firm is allocated to an employment size class according to the employment size of the commonly-controlled group of enterprises to which it belongs.[5] However, whereas the entire GDP of that commonly-controlled group of enterprises was assigned to a single industry in Leung, Rispoli, and Gibson (2011),[6] this paper allows the GDP of a business to be spread across multiple industries. This is possible because the Business Register File provides information on the level of economic activity in each of the industries in which a business is engaged. The allocation of each business's GDP across multiple industries allows a more accurate picture of GDP by size in each industry. Users of the information found in this paper should still note that the GDP-by-size estimates are point estimates and that they could be sensitive to the other assumptions and methods needed to derive them.

The contribution of large businesses to Canadian business-sector GDP rose by 2.9 percentage points, from 45.0% in 2001 to 47.9% in 2008. In contrast, the contribution of small businesses fell by 1.3 percentage points, from 41.9% to 40.6%, and the contribution of medium-sized businesses fell by 1.6 percentage points, from 13.1% to 11.5%. The relative importance of large businesses increased as a result of the impact of the rising importance of the mining and oil and gas sector in the Canadian economy and because the increasing dominance of large businesses in the mining and oil and gas sector outweighed the impact of the declining

1. See: Baldwin and Macdonald (2009); Baldwin, Gu, and Yan (2011); and Baldwin and Yan (2012).
2. See Macdonald (2007).
3. See Wyman (2008). Bernard (2011) argued that it is not the changes in regional economic conditions themselves that cause workers to move, but rather changes in the personal income of workers. That is to say, workers tend to move from one region to another only after their incomes have been affected by changes in the economic conditions.
4. Contributions are measured in terms of GDP because GDP includes only value added, whereas sales include both value added and the value of intermediate inputs. A firm could have high sales but low GDP because it adds little to the value of the intermediate inputs it purchases.
5. At the head of this group of enterprises is an ultimate parent, an entity in a legal structure that controls through majority ownership one or more firms. As in Leung, Rispoli, and Gibson (2011), enterprises are consolidated into groups headed by an ultimate parent because it is the ultimate parent that is entitled to make decisions for the group of enterprises that it owns and controls.
6. In Leung, Rispoli, and Gibson (2011), the industry of a business was the industry where it paid out most of its wages.

importance of manufacturing and of the fall in the contribution of large businesses within manufacturing.

In 2001, the large-business share of GDP in mining and oil and gas (69.4%) was already larger than the large-business share of GDP in the business sector (45.0%). Thus, as economic activity in mining and oil and gas, an industry where large businesses already dominated, expanded rapidly in the 2000s, the large-business share of business-sector GDP grew. Moreover, the expansion in the mining and oil and gas sector was itself concentrated in the large-business category; the large-business share of GDP in mining and oil and gas rose from 69.4% in 2001 to 82.9% in 2008.

As the mining and oil and gas industry was expanding, manufacturing, another industry dominated by large firms, was contracting in relative terms. However, the developments in the mining and oil and gas industry, together with increases in the contribution of large businesses in a broad range of other industries, more than offset the effects of the decline in manufacturing.

Section 2 explains conceptual issues faced in developing estimates of GDP-by-size class. Section 3 describes the data sources. Results for the business sector for 2001 to 2008 are presented in Section 4. A discussion of the GDP of small, medium-sized, and large firms by industry is presented in Section 5. The last section, Section 6, presents concluding remarks.

2 Conceptual issues

2.1 The measurement of gross domestic product

Value added in the input-output accounts is one of several GDP measures used in the System of National Accounts. Value added in the input-output accounts is the sum of gross value added of all resident producer units. It is also the difference between output and intermediate consumption (*System of National Accounts 2008* (SNA 2008), paragraph 1.17) (European Commission et al. 2009). Using the input-output accounts, GDP at the industry- or national-level is calculated as follows:

GDP at basic prices = Wages and salaries

+ Supplementary labour income

+ Mixed income

+ Gross operating surplus (primarily corporate profits)

+ Indirect taxes on production less subsidies

This paper uses the same equation to calculate nominal GDP for each business-size category. This calculation is possible because businesses report the above components of value added to the Canada Revenue Agency through their tax filing and to Statistics Canada through various surveys.

At the level of the total economy, GDP is also measured by using the final-expenditures approach, the sum of the final use of goods and services less the value of imports (SNA2008, paragraphs 2.138 to 2.140) (European Commission et al. 2009). This approach does not permit the measurement of GDP by firm because some of the data are not collected at the firm level. For example, personal expenditures are collected at the individual or household level.

2.2 Total economy versus business sector

The business sector (as defined by the System of National Accounts) in this paper is composed of all corporate businesses and unincorporated enterprises that are organized for profit as well as other entities that produce goods and services for sale at a price intended at least to approximate the costs of production. Income trusts are included in the business sector, as are government business enterprises, but rent that is imputed to owner-occupied housing is not.

The ultimate parent enterprise is the entity in a legal structure that controls through majority ownership one or more enterprises or businesses. It is used to group businesses since it makes decisions for the group of enterprises that it owns and controls. However, when it comes to government entities, it is more difficult to ascertain the level at which decisions are taken. In addition, the wide variety of practices used to define reporting entities in the government sector makes comparisons across entities and jurisdictions problematic. Size of entity has much less meaning given the wide variety of practices across government in terms of consolidating payroll into small or large units. As a result, this paper focuses on the business sector.

3 Data sources and methodology

In order to obtain measures of the different components of GDP, data from a number of administrative files are used. Data at the firm level (in this paper, a firm is defined as a group of enterprises controlled by an ultimate parent) are available for most of these components: wages and salaries; portions of supplementary labour income; other operating surplus; and indirect taxes less subsidies. In these cases, the components of GDP for each firm are allocated to the various locations belonging to the firm and assigned to the size category of the group of enterprises to which it belongs.[7] The remaining components of GDP are allocated on the basis of supplementary information. The unincorporated GDP (mixed income, interest payments, and depreciation) is allocated according to *T1 Unincorporated Businesses* data.[8] Other GDP components are distributed across size categories on the basis of supplementary information (unlegislated portion of supplementary labour income—private pension plan contributions, supplementary medical and dental benefits, etc.).[9] The resulting estimates of the components of GDP for each size class are then summed and benchmarked industry-by-industry to the input-output accounts.[10] The GDP-by-size estimates for the business sector are the sum of the benchmarked industry estimates. The subsections below describe the data sources, mainly administrative tax data sources, used to obtain each component of GDP.

The General Index of Financial Information (GIFI) income statements included with the T2 corporate tax filings of firms is the main data source used to make estimates of the non-compensation components of GDP as defined by the operating profits and indirect taxes on production less subsidies from the System of National Accounts (SNA). The main data source for labour income is the T4, *Statement of Remuneration Paid*, forms issued by every business, both unincorporated and corporate, to its employees for income tax purposes. The employment

7. The Business Register File is used to map all information from the above data *sources* to the appropriate ultimate parent enterprise group, the concept of the firm used in Leung, Rispoli, and Gibson (2011). See Leung, Rispoli, and Gibson (2011) for a detailed description of the data sources and method. In Leung, Rispoli, and Gibson (2011), the components of GDP are added up to the ultimate parent level and allocated to the size category of the group of enterprises belonging to it. Also, the entire unincorporated GDP components are allocated to the small-size category.
8. For a review of the data sources and methodology on estimating unincorporated GDP, see Rispoli (2009*a*,*b*,*c*).
9. Estimates were based on the Workplace and Employee Survey (Statistics Canada 2008).
10. Estimates for finance were done at a lower level of industry detail, the *L* Level in the input-output accounts, to take into account the different methods for calculating operating surplus by the different sectors. For example, net interest is calculated for industries whose principal activity involves financial intermediation (NAICS 52) while operating profits are calculated for all other finance industries (NAICS 53: real estate agents, rentals, etc).

of each firm is obtained from form PD7A, *Statement of Account for Current Source Deductions*, payroll deduction accounts.

As is generally the case, small, medium-sized, and large firms are defined by their employment size. In this paper, each firm is allocated to a size class based on the employment size of the commonly-controlled group of enterprises (ultimate parent) to which it belongs. The employment size of a firm here is the sum of all the employment in each firm controlled by its ultimate parent. Small firms are firms with 0 to 99 employees; medium-sized firms are those with 100 to 499 employees; and large firms are those with 500 or more employees.

Users of the information found in this paper should still note that the GDP-by-size estimates are point estimates and that they could be sensitive to the assumptions and methods needed to derive them.

4 Gross domestic product by business size for the business sector

Over the entire 2001-to-2008 period, small and medium-sized businesses accounted for more than half of GDP in the business sector. However, their contribution fell over time. Large businesses grew at an average of 6.5% per year in nominal terms between 2001 and 2008, outpacing small businesses, at 5.1% per year, and medium-sized businesses, at 3.5% per year (Table 1 and Chart 1). As a result, the contribution of small and medium-sized businesses to GDP fell from 55.0% in 2001 to 52.1% in 2008. The decline in the contribution of both began in 2003. The contribution of small businesses continued to fall substantially in 2005 and 2006 but rose in 2007 and 2008. For medium-sized firms, the contribution fell starting in 2002 and continued to fall to 2008.

Table 1

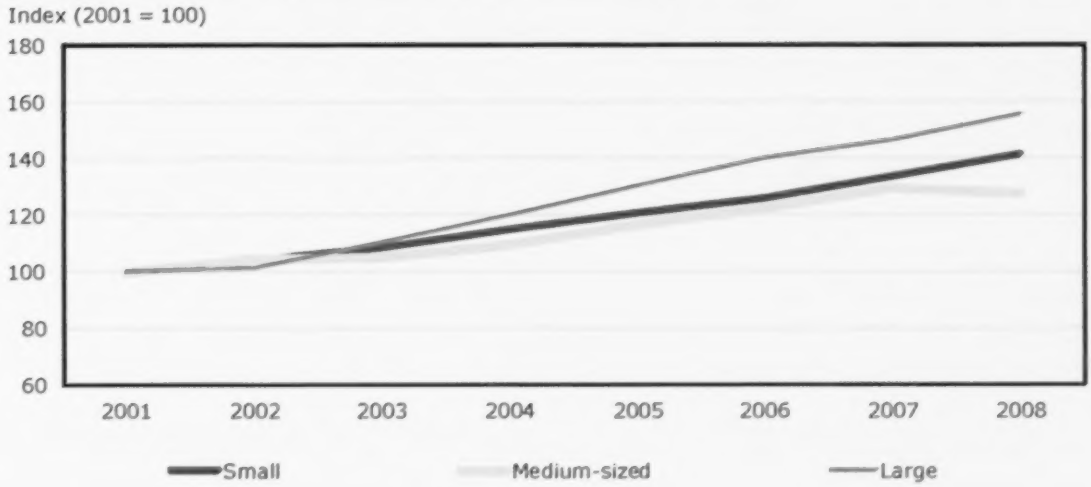
Business-sector nominal gross domestic product (GDP) for small, medium-sized, and large businesses, Canada, 2001 to 2008

Business size class	2001	2002	2003	2004	2005	2006	2007	2008	Average annual growth, 2001 to 2008
					millions of dollars				percent
GDP									
Small	331,740	344,372	359,107	381,643	401,415	416,928	443,801	469,518	5.1
Medium-sized	104,244	108,969	109,248	114,346	121,663	127,750	134,648	133,040	3.5
Large	356,615	362,354	393,341	427,653	465,362	498,784	522,128	554,192	6.5
Total	792,600	815,695	861,696	923,642	988,441	1,043,462	1,100,576	1,156,750	5.5
					percent				
Share of total business-sector GDP									
Small	41.9	42.2	41.7	41.3	40.6	40.0	40.3	40.6	...
Medium-sized	13.1	13.4	12.7	12.4	12.3	12.2	12.2	11.5	...
Total	55.0	55.6	54.4	53.7	52.9	52.2	52.6	52.1	...
Large	45.0	44.4	45.6	46.3	47.1	47.8	47.4	47.9	...

Note: Numbers may not add up as a result of rounding.
Source: Statistics Canada, authors' calculations.

Chart 1

Cumulative growth of business-sector gross domestic product for small, medium-sized, and large businesses, Canada, 2001 to 2008



Source: Statistics Canada, authors' calculations.

Table 2

Components of business-sector nominal gross domestic product (GDP) for small, medium-sized, and large businesses, Canada, 2001 and 2008

	Business size class, 2001			Total	Business size class, 2008			Total
	small	medium-sized	large	2001	small	medium-sized	large	2008
				millions of dollars				
Value of business-sector GDP								
Gross operating surplus	78,629	34,871	166,117	279,617	114,993	36,015	285,062	436,069
Labour income								
Wages and salaries	174,738	58,561	153,480	386,780	244,543	81,920	217,981	544,444
Supplementary labour income	14,789	6,767	23,958	45,514	21,081	10,215	37,178	68,474
Total	189,527	65,328	177,438	432,293	265,624	92,135	255,159	612,918
Mixed income	42,024	2,032	1,480	45,536	57,060	2,476	1,817	61,353
Indirect taxes on production								
Taxes	22,367	2,068	11,611	36,045	32,480	2,523	12,190	47,193
Subsidies	-808	-54	-31	-892	-638	-109	-35	-782
Net	21,559	2,014	11,580	35,153	31,842	2,414	12,155	46,410
GDP at basic prices	331,740	104,244	356,615	792,600	469,518	133,040	554,192	1,156,750
				percent				
Share of business-sector GDP								
Gross operating surplus	28.1	12.5	59.4	100.0	26.4	8.3	65.4	100.0
Labour income								
Wages and salaries	45.2	15.1	39.7	100.0	44.9	15.0	40.0	100.0
Supplementary labour income	32.5	14.9	52.6	100.0	30.8	14.9	54.3	100.0
Total	43.8	15.1	41.0	100.0	43.3	15.0	41.6	100.0
Mixed income	92.3	4.5	3.3	100.0	93.0	4.0	3.0	100.0
Indirect taxes on production								
Taxes	62.1	5.7	32.2	100.0	68.8	5.3	25.8	100.0
Subsidies	90.5	6.0	3.4	100.0	81.6	13.9	4.5	100.0
Net	61.3	5.7	32.9	100.0	68.6	5.2	26.2	100.0
GDP at basic prices	41.9	13.2	45.0	100.0	40.6	11.5	47.9	100.0

Note: Numbers may not add up as a result of rounding.
Source: Statistics Canada, authors' calculations.

The large-business share of GDP varied across the components of GDP. Large businesses accounted for the majority of gross operating surplus and supplementary labour income, but for less than half of the overall labour income and indirect taxes less subsidies (see Table 2).

Over time, large businesses increased their share of the two main components of GDP: gross operating surplus and labour income. The large-business share of gross operating surplus increased markedly, from 59.4% in 2001 to 65.4% in 2008, while the large-business share of labour income grew slightly, from 41.0% to 41.6%, over the same time period. Therefore, large businesses increased their contribution to GDP primarily because they were able to grow their operating surplus, which is composed primarily of corporate profits, faster than either small or medium-sized businesses.

5 Gross domestic product of small, medium-sized, and large firms by industry

From 2001 to 2008, the distribution of business-sector GDP across most industries (except mining and oil and gas, construction, and manufacturing) remained relatively stable (defined as a percentage of total business-sector GDP). Mining grew from a 7.5% share of business-sector GDP in 2001 to a 13.4% share in 2008, an increase of $95.3 billion in nominal GDP. Construction grew from a 6.8% share of business-sector GDP in 2001 to a 9.3% share in 2008, an increase of $53.4 billion in nominal GDP, while manufacturing declined from 22.7% in 2001 to 15.0% in 2008 (Table 3).

Table 3

Business-sector nominal gross domestic product (GDP) by industry, Canada, 2001 and 2008

Industry[1]	All business sizes		First difference	Share of business-sector GDP	
	2001	2008	2001 and 2008	2001	2008
	millions of dollars			percent	
Agriculture	22,453	27,924	5,471	2.8	2.4
Mining	59,443	154,758	95,315	7.5	13.4
Utilities	27,038	34,454	7,416	3.4	3.0
Construction	54,211	107,605	53,394	6.8	9.3
Manufacturing	179,935	173,631	-6,304	22.7	15.0
Wholesale	53,351	78,153	24,802	6.7	6.8
Retail	54,427	83,436	29,009	6.9	7.2
Transportation	46,371	62,488	16,117	5.9	5.4
Information	34,204	49,539	15,335	4.3	4.3
Finance	115,385	164,273	48,888	14.6	14.2
Professional	46,074	72,809	26,735	5.8	6.3
Administrative	22,507	37,477	14,970	2.8	3.2
Education	2,142	3,267	1,125	0.3	0.3
Health	25,740	38,423	12,684	3.2	3.3
Arts and entertainment	7,663	10,641	2,978	1.0	0.9
Accommodation and food services	23,999	32,791	8,792	3.0	2.8
Other services	17,660	25,083	7,423	2.2	2.2
Total	792,600	1,156,750	364,150	100.0	100.0

1. S-level aggregation based on the North American Industry Classification System (NAICS).
Note: Numbers may not add up as a result of rounding.
Source: Statistics Canada, authors' calculations.

Much of the growth in the mining and oil and gas industry was accounted for by large businesses. The nominal GDP of large businesses in this industry grew on average about 17.6% per year (Table 4) over the period, much faster than the 7.2% and 4.0% average growth rates of small and medium-sized businesses, respectively. Furthermore, the mining and oil and gas industry alone accounted for about $87 billion, or about 44%, of the increase in large businesses GDP in the 2001-to-2008 period (see Table 5). Other notable increases in the large size class occurred in finance (increase in GDP of about $27.4 billion), retail trade (increase in GDP of about $15.4 billion), information (increase in GDP of about $15 billon), wholesale trade (increase in GDP of about $14 billion), and transportation (increase in GDP of about $12 billon).

The decline in manufacturing GDP over the 2001-to-2008 period can be attributed mostly to large businesses. The manufacturing GDP of large businesses declined at an average rate of 1.8% per year between 2001 and 2008. In contrast, small businesses were able to grow their GDP in manufacturing by an average of 3.1% a year.

Table 4

Business-sector nominal gross domestic product by size of business and industry, Canada, 2001 and 2008

Industry[1]	Small businesses		Average annual growth	Medium-sized businesses		Average annual growth	Large businesses		Average annual growth
	2001	2008	2001 and 2008	2001	2008	2001 and 2008	2001	2008	2001 and 2008
	millions of dollars		percent	millions of dollars		percent	millions of dollars		percent
Agriculture	20,362	25,904	3.5	856	1,043	2.9	1,236	978	-3.3
Mining	8,132	13,265	7.2	10,028	13,204	4.0	41,283	128,288	17.6
Utilities	965	890	-1.2	1,357	1,654	2.9	24,716	31,910	3.7
Construction	42,004	78,261	9.3	5,530	14,169	14.4	6,676	15,174	12.4
Manufacturing	35,906	44,317	3.1	33,625	31,764	-0.8	110,404	97,550	-1.8
Wholesale	25,043	31,282	3.2	9,334	13,888	5.8	18,973	32,983	8.2
Retail	27,963	38,650	4.7	5,286	8,134	6.4	21,178	36,651	8.2
Transportation	17,978	20,963	2.2	6,734	7,931	2.4	21,659	33,594	6.5
Information	4,392	5,082	2.1	3,973	3,787	-0.7	25,838	40,670	6.7
Finance	54,643	73,611	4.3	8,709	11,265	3.7	52,032	79,397	6.2
Professional	26,351	41,774	6.8	6,417	9,262	5.4	13,305	21,774	7.3
Administrative	11,264	16,554	5.7	4,053	5,830	5.3	7,190	15,092	11.2
Education	1,609	2,583	7.0	163	329	10.6	369	355	-0.6
Health	21,601	31,669	5.6	2,066	2,601	3.3	2,073	4,153	10.4
Arts and entertainment	3,309	4,219	3.5	1,056	1,107	0.7	3,297	5,315	7.1
Accommodation and food services	15,715	20,166	3.6	3,872	5,085	4.0	4,413	7,540	8.0
Other services	14,505	20,329	4.9	1,183	1,987	7.7	1,972	2,767	5.0
Business sector	331,740	469,518	5.1	104,244	133,040	3.5	356,615	554,192	6.5

1. S-level aggregation based on the North American Industry Classification System (NAICS).
Note: Numbers may not add up as a result of rounding.
Source: Statistics Canada, authors' calculations.

Much of the level increase in construction GDP between 2001 and 2008 ($36.3 billion of the $53.4-billion increase) came from small businesses. However, in terms of growth rates, construction GDP among medium-sized and large businesses grew faster. Construction GDP in the small-business category advanced at an average rate of 9.3% per year, compared to 14.4% and 12.4% for medium-sized and large businesses, respectively.

Table 5

Business-sector nominal gross domestic product by size of business and industry, Canada, first difference, 2001 and 2008

Industry[1]	Business size classes, 2001 and 2008					
	Small	Medium-sized	Large	Small	Medium-sized	Large
	millions of dollars			percent		
Agriculture	5,542	187	-258	4.0	0.7	-0.1
Mining	5,134	3,176	87,006	3.7	11.0	44.0
Utilities	-75	297	7,194	-0.1	1.0	3.6
Construction	36,257	8,639	8,498	26.3	30.0	4.3
Manufacturing	8,410	-1,861	-12,854	6.1	-6.5	-6.5
Wholesale	6,239	4,554	14,009	4.5	15.8	7.1
Retail	10,687	2,848	15,474	7.8	9.9	7.8
Transportation	2,985	1,197	11,935	2.2	4.2	6.0
Information	690	-187	14,832	0.5	-0.6	7.5
Finance	18,967	2,556	27,365	13.8	8.9	13.9
Professional	15,422	2,844	8,469	11.2	9.9	4.3
Administrative	5,291	1,777	7,902	3.8	6.2	4.0
Education	973	166	-14	0.7	0.6	0.0
Health	10,069	535	2,080	7.3	1.9	1.1
Arts and entertainment	910	51	2,017	0.7	0.2	1.0
Accommodation and food services	4,452	1,213	3,127	3.2	4.2	1.6
Other services	5,824	803	796	4.2	2.8	0.4
Total	137,778	28,796	197,577	100.0	100.0	100.0

1. *S*-level aggregation based on the North American Industry Classification System (NAICS).
Note: Numbers may not add up as a result of rounding.
Source: Statistics Canada, authors' calculations.

Table 6

Distribution of business-sector nominal gross domestic product across industries by size class, Canada, 2001 and 2008

Industry[1]	Small businesses		Medium-sized businesses		Large businesses	
	2001	2008	2001	2008	2001	2008
			percent			
Agriculture	6.1	5.5	0.8	0.8	0.3	0.2
Mining	2.5	2.8	9.6	9.9	11.6	23.1
Utilities	0.3	0.2	1.3	1.2	6.9	5.8
Construction	12.7	16.7	5.3	10.7	1.9	2.7
Manufacturing	10.8	9.4	32.3	23.9	31.0	17.6
Wholesale	7.5	6.7	9.0	10.4	5.3	6.0
Retail	8.4	8.2	5.1	6.1	5.9	6.6
Transportation	5.4	4.5	6.5	6.0	6.1	6.1
Information	1.3	1.1	3.8	2.8	7.2	7.3
Finance	16.5	15.7	8.4	8.5	14.6	14.3
Professional	7.9	8.9	6.2	7.0	3.7	3.9
Administrative	3.4	3.5	3.9	4.4	2.0	2.7
Education	0.5	0.6	0.2	0.2	0.1	0.1
Health	6.5	6.7	2.0	2.0	0.6	0.7
Arts and entertainment	1.0	0.9	1.0	0.8	0.9	1.0
Accommodation and food services	4.7	4.3	3.7	3.8	1.2	1.4
Other services	4.4	4.3	1.1	1.5	0.6	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0

1. *S*-level aggregation based on the North American Industry Classification System (NAICS).
Note: Numbers may not add up as a result of rounding.
Source: Statistics Canada, authors' calculations.

Table 6 contains the distribution of business GDP across industries by size class. About 70% of small-business GDP in 2008 was accounted for by six industries. Construction produced the largest share of small-business GDP (16.7% in 2008), followed by finance (15.7%), manufacturing (9.4%), professional services (8.9%), retail trade (8.2%), health services (6.7%), and wholesale trade (6.7%). Construction also produced the largest percentage change between 2001 and 2008, increasing by 4.0 percentage points. It was followed by professional services, increasing by 1.0 percentage point.

For medium-sized businesses, manufacturing was the largest contributor to GDP (23.9% in 2008). This was followed by construction, wholesale trade, and mining, as each contributed about 10% to medium-sized-business GDP. Construction also produced the largest percentage change between 2001 and 2008, increasing by 5.4 percentage points, while manufacturing produced the largest percentage decline, falling 8.4 percentage points.

Three industries of the large businesses in 2008 accounted for over half of large-business GDP. Mining produced the biggest share of large-business GDP (23.1% in 2008), followed by manufacturing (17.6%) and finance (14.3%). Mining also produced the largest percentage change between 2001 and 2008, increasing by 11.5 percentage points. On the other hand, manufacturing produced the largest percentage decline, falling 13.4 percentage points.

Table 7

Share of business-sector nominal gross domestic product by size of business and industry, Canada, 2001 and 2008

Industry[1]	Small businesses		Medium-sized businesses		Large businesses	
	2001	2008	2001	2008	2001	2008
			percent			
Agriculture	90.7	92.8	3.8	3.7	5.5	3.5
Mining	13.7	8.6	16.9	8.5	69.4	82.9
Utilities	3.6	2.6	5.0	4.8	91.4	92.6
Construction	77.5	72.7	10.2	13.2	12.3	14.1
Manufacturing	20.0	25.5	18.7	18.3	61.4	56.2
Wholesale	46.9	40.0	17.5	17.8	35.6	42.2
Retail	51.4	46.3	9.7	9.7	38.9	43.9
Transportation	38.8	33.5	14.5	12.7	46.7	53.8
Information	12.8	10.3	11.6	7.6	75.5	82.1
Finance	47.4	44.8	7.5	6.9	45.1	48.3
Professional	57.2	57.4	13.9	12.7	28.9	29.9
Administrative	50.0	44.2	18.0	15.6	31.9	40.3
Education	75.1	79.1	7.6	10.1	17.2	10.9
Health	83.9	82.4	8.0	6.8	8.1	10.8
Arts and entertainment	43.2	39.6	13.8	10.4	43.0	49.9
Accommodation and food services	65.5	61.5	16.1	15.5	18.4	23.0
Other services	82.1	81.0	6.7	7.9	11.2	11.0
Business sector	41.9	40.6	13.2	11.5	45.0	47.9

1. *S*-level aggregation based on the North American Industry Classification System (NAICS).
Note: Numbers may not add up as a result of rounding.
Source: Statistics Canada, authors' calculations.

In aggregate, large businesses account for less than half of business-sector GDP. However, this number varies considerably by industry (Table 7). In 2008, large businesses accounted for 3.5% of GDP in agriculture, 10.8% of GDP in health, 10.9% of GDP in education, 11% of GDP in other services, 14.1% of GDP in construction, 23.0% of GDP in accommodation and food services, 29.9% of GDP in professional services, 40.3% of GDP in administrative services, 42.2% of GDP in wholesale trade, 43.9% of GDP in retail trade, 48.3% of GDP in finance, 49.9% of GDP in arts and entertainment, 53.8% of GDP in transportation, 56.2% of GDP in manufacturing, 82.1% of GDP in information, 82.9% of GDP in mining and oil and gas, and 92.6% of GDP in utilities.

Between 2001 and 2008, the contribution of large businesses to GDP rose in a broad range of industries: mining and oil and gas (13.5 percentage points); administrative services (8.4 percentage points); transportation and warehousing (7.1 percentage points); arts and entertainment (6.9 percentage points); wholesale trade (6.6 percentage points); information and culture (6.6 percentage points); retail trade (5.0 percentage points); accommodation and food (4.6 percentage points); finance (3.2 percentage points); health services (2.7 percentage points); utilities (1.2 percentage points); and professional services (1.0 percentage point). It declined in a smaller number of industries: agriculture, forestry, and fishing (2.0 percentage points); manufacturing (5.2 percentage points); educational services (6.3 percentage points); and other services (0.2 percentage points).

The decreasing contribution of large businesses in manufacturing and agriculture (including forestry and fishing) was due entirely to a rising contribution by small businesses. Both small and medium-sized businesses increased their contributions in educational services, and only medium-sized businesses increased its contribution in other services.

The developments in the mining and oil and gas industry are key to understanding why the large-business share of GDP increased in the 2001-to-2008 period. In 2001, the large-business share of GDP in mining and oil and gas (69.4%) was already larger than the large-business share of GDP in the business sector (45.0%) (Table 7). Thus, as the economy expanded quickly in an industry where large businesses already dominated (Table 3), the large-business share of the business sector grew. Moreover, as the expansion in the mining and oil and gas sector was itself concentrated in the large-business category (Table 4 and Table 5), the large-business share of GDP in mining and oil and gas rose from 69.4% in 2001 to 82.9% in 2008.

As the mining and oil and gas industry was expanding, manufacturing, another industry dominated by large firms, was contracting. However, the developments in the mining and oil and gas industry, together with increases in the contribution of large businesses in a broad range of other industries, more than offset the effects of the decline in manufacturing.

6 Conclusion

This paper examines the contribution of small, medium-sized, and large businesses to the Canadian economy from 2001 to 2008. While past studies measured contributions in terms of employment, this paper presents contributions in terms of GDP. GDP is a more comprehensive measure of the total contribution of a sector to income generation.

Overall, large firms, that is, firms with 500 or more employees, are found to have accounted for 47.9% of the GDP produced in the business sector in 2008, slightly increasing from 45.0% in 2001. The share of business-sector GDP of small and medium-sized businesses, including unincorporated businesses, declined from 55.0% in 2001 to 52.1% in 2008. Large businesses grew by an average of 6.5% per year as the economy expanded between 2001 and 2008, outpacing small businesses, at 5.1% per year, and medium-sized businesses, at 3.5% per year.

The large-business share of GDP varied across the components of GDP. Large businesses accounted for the majority of gross operating surplus and supplementary labour income, but for less than half of overall labour income and indirect taxes less subsidies. The share of GDP accounted for by large businesses varied widely by industry. Large firms had more than 50% of business-sector GDP in utilities, information, mining and oil and gas, manufacturing, finance and insurance, management of companies and enterprises, and transportation and warehousing; they had less than 15% of business-sector GDP in construction, other services, education, health, and agriculture, forestry, and fishing.

About half of the increase in GDP in large businesses from 2001 and 2008 was accounted for by the mining and oil and gas industry, where GDP increased by $87 billion, growing on average by about 17.6% per year. As the resource sector expanded through the 2000s, large firms in this sector substantially contributed to the increase in their overall share of business-sector GDP.

Smaller-sized firms operated mainly in labour-intensive service-based industries and agriculture and construction. As the domestic economy grew during the 2000s, construction produced the largest share of small-business GDP (16.7% in 2008), increasing by about $36 billion from 2001 to 2008 and growing by an average of 9.3% per year over this period. Other substantial increases occurred in finance (e.g., lessors of real estate) and professional services.

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